A MUCH DESCRIBED ICHNEUMONID AND ITS SYSTEMATIC POSITION.

By R. A. Cushman,

Bureau of Entomology.[1]

The difficulties of the student of the Ichneumonidae are well demonstrated by the vicissitudes through which the species discussed below has passed.

In 1868 Cresson described, from the male only, his *Mesoleptus* (?) *muliebris*.

In 1875 Provancher described, from the female, *Mesostenus rufipes*, which, in 1879, he transferred to the genus *Mesoleptus*.

In 1880 Provancher described, from the female, *Echthrus pediculatus*, and, in 1886, *Mesostenus pleuricinctus*, also from the female.

In 1894, Davis, who had examined a large number of the Provancher types, synonymized *Mesoleptus rufipes* Provancher and *Echthrus pediculatus* Provancher, which latter he doubtfully referred to the genus *Euxorides* Cresson.

In 1895, Davis, after having examined more of the Provancher types, added *Mesostenus pleuricinctus* Provancher to the above synonymy, and stated that "they are all, with very little doubt, synonyms of Cresson's *Mesoleptus* (?) *muliebris*, which is the male." In this paper Davis, considering the species more likely cryptine than tryphonine or pimpline, referred it, because of the lunulae, to the tribe Phaeogenini, evidently considered by him cryptine rather than ichneumonine, and placed it in Foerster's genus *Diacritus*, thereby making it the genotype of *Diacritus* Foerster.

Dalla Torre adopted Davis' synonymy and generic conclusions, and Viereck gives as the genotype of *Diacritus*, *Mesostenus rufipes* Provancher.

Since the publication of Davis' synonymy this species has been again described, this time by Viereck under the name *Plectiscidea* (*Aperileptus*?) *contentionis*.

In 1875 Provancher described from the male his *Mesoleptus variabilis*, which he later (1879) synonymized with *muliebris* Cresson. But, as will be shown later, this synonymy is incorrect.

Mr. S. A. Rohwer has recently examined the Provancher types, and there is in the National Museum a specimen of this species which is a Rohwer homotype of all of Provancher's species except, of course, *variabilis*. At the time he examined the types Mr. Rohwer was of the opinion that *variabilis* Provancher can not be the male of the present species, but that it is a mesoleptine. In

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the Mesoleptini, his notes state, it runs in Davis' key to *Zemiodes* Foerster or *Clepsiporthus* Foerster, but is apparently neither of the species listed thereunder.

In 1882 Provancher again used the name *Mesoleptus variabilis*, this time for another species, which Mr. Rohwer is of the opinion is the same as *Euryproctus sentiris* Davis. In arriving at this conclusion Mr. Rohwer ran the Provancher type in Davis' key to the Mesoleptini and compared it with the original description of *E. sentiris*. Provancher's name, being preoccupied in *Mesoleptus*, will, if it is the same as *E. sentiris*, have to give way to Davis' name and the species be known as *Euryproctus sentiris* Davis.

In the National Museum is a specimen from Meklenburg, Germany, labelled *Phidias aciculatus* Vollenhoven, genotype of *Phidias* Vollenhoven, which specimen is congeneric with the species under discussion. If this specimen is correctly determined, which appears doubtful, *Phidias* Vollenhoven must fall as a synonym of *Diacritus* Foerster (Davis). I have not seen the genotype of *Plectiscidea* Viereck, but if his *P. contentionis* is correctly referred to the genus it too must be synonymous with *Diacritus*.

As for the systematic position of *Diacritus*, it can certainly not be left, where Foerster placed it, in the Phaeogenini. Practically the only way in which it resembles the other genera of that tribe is in the possession of lunulae on the tergites, and it is most certain that the species on which Foerster based his genus is not congeneric with the genotype. The genus, however, must follow its type species, and it is the opinion of the writer that the more prominent characteristics of the genus, especially the very narrow first abdominal segment with its prominent spiracles, ally it more closely with certain genera in the Plectiscini than with any other group. In Foerster's key to his family Plectiscoidae it runs directly to *Blapticus* Foerster, but differs markedly from the description of that genus. If its possession of an areolet is ignored it runs to *Entelechia* Foerster, and, from the description of that genus, is evidently rather closely allied to it.

Genus *Diacritus* Foerster (Davis).

Head broader than thorax; eyes large, nearly parallel within; temples strongly sloping; occipital carina strong; malar space somewhat shorter than basal width of mandible; face much wider than long, slightly elevated in middle; clypeus separated, weakly convex, much broader than long, subtruncate at apex; antenae nearly as long as body, first joint of flagellum very long, much longer than second, apical joint in female large, twice as long as penultimate, in male, flagellum tapering toward apex; notauli deep, meeting on disk of mesoscutum, prescutum gibbous; prepectal carina very strong and complete; propodeum longer than combined height of propo-

deum and metapleura, all longitudinal carinae but only apical transverse carina present, latter very strong and very close to apex, petiolar area very short; spiracle very near base; legs long, slender, hind basitarsus nearly as long as rest of joints combined; wings large, reaching to apex of abdomen, areolet oblique quadrangular, first abscissa of radius straight, second decurved; stigma lanceolate, radius originating in middle; nervellus broken below middle, brachiella more or less developed; abdomen petiolate, first tergite very narrow, nearly cylindrical, barely wider at apex than at base, slightly decurved, spiracles prominent, slightly before middle; tergites beyond first in female suddenly much wider, in male gradually wider, 2–4 with distinct lunulae and 2 with large thyridia; ovipositor nearly as long as body, compressed.

Type.—Diacritus muliebris (Cresson).

Diacritus muliebris (Cresson).

Mesoleptus (?) *muliebris* Cresson, Trans. Am. Ent. Soc., II, 1868, p. 102, ♂.
Mesostenus rufipes Provancher, Nat. Can., VII, 1875, p. 263, ♀.
Mesoleptus rufipes Provancher, Nat. Can., XI, 1879, p. 226.
Echthrus pediculatus Provancher, Nat. Can., XII, 1880, p. 99, ♀.
Mesostenus pleuricinctus Provancher, Addit. Faun. Ent. Can., Hym., 1886, p. 76, ♀.
Euxorides (?) *pediculatus* Provancher, Davis, Proc. Ac. Nat. Sci. Phil., 1894, pp. 184–190.
Diacritus rufipes Provancher, Davis, Can. Ent., XXVII, 1895, pp. 288–289 (=? *Mesoleptus muliebris* Cresson).
Diacritus rufipes Provancher, Dalla Torre, Cat. Hym., III, 1902, p. 770 (=? *Mesoleptus muliebris* Cresson,) (=?*Mesoleptus variabilis* Provancher, 1875 not 1882).
Diacritus rufipes Provancher, Viereck, Bul. 83, U. S. Nat. Mus., 1914, p. 43.
Plectiscidea (*Aperileptus*?) *contentionis* Viereck, Conn. State Geol. & Nat. Hist. Survey, Bul. 22, part III, 1916, p. 276, ♀.

A review of the above synonymy shows that the species has been described under five specific names, and referred to six genera representing five tribes and, including the original placing of *Diacritus*, all five of the subfamilies of the Ichneumonidæ.

Description from types of Cresson and Viereck species, Rohwer homotype of Provancher species, and other material of both sexes.

Female.—Length 7 mm.; antennae 6 mm.; ovipositor 3 mm. Head and thorax, except metapleura and propodeum, polished, nearly without sculpture; face about two-thirds as long as wide, obscurely shagreened but shining; clypeus nearly twice as broad as long; malar space two-thirds as long as basal width of mandible; metapleura and propodeum, except petiolar area, roughly coriaceous, petiolar area polished; abdomen, including first tergite shagreened, subpolished apically; first tergite without dorsal cari-

nae, but with strong lateral carinae from base to spiracle and from spiracle to apex.

Black, with whitish to yellowish markings as follows: mandibles, palpi, apex of clypeus, antennal insertions, scape and pedicel beneath, pronotum anteriorly, propleura largely, front and middle coxae and trochanters, hind trochanters below, tegulae, spot below, scutellum and post scutellum, tergal sutures, and apical tergite; antennae brown; legs testaceous, hind tibiae and tarsi fuscous; wings hyaline.

Male.—Differs from female principally in color, the markings being paler and embracing the entire face, cheeks, entire ventral surface of thorax except metasternum, extending up nearly to dorsal margin of mesopleura, ventral surface of all legs except tarsi, a central spot on mesoscutum, occasionally a small spot on each side of prescutum, more or less obscure spots laterally on propodeum, and much broader bands on abdomen.

Zemiodes (?) **variabilis** (Provancher).

Mesoleptus variabilis Provancher, Nat. Can., VII, 1875, p. 115, (not 1882).
Mesoleptus muliebris Cresson, Provancher, Nat. Can., XI, 1879, p. 227.

Provancher synonymized these two, but the synonymy is incorrect.

Euryproctus sentiris Davis.

?*Mesoleptus variabilis* Provancher, Nat. Can., XIV, 1882, p. 7. (not 1875).
?*Mesoleptus provancheri*, new name for *variabilis* Provancher, 1882 not 1875.
Euryproctus sentiris Davis, Trans. Am. Ent. Soc., XXIV, 1897, p. 330.

NEW HYMENOPTERA.

By J. C. Crawford.

Hesperapis Ckll.

Professor Cockerell has recently (Psyche, XXIII, 176–178, 1916) published on the synonymy of this group, and at present it seems best to treat *Zacesta* and *Panurgomyia* as synonyms of this genus. *Z. rufipes* is very similar to the genotype of *Hesperapis* and is probably the male of a very closely allied species. *Panurgomyia fuchsi* belongs to the group of *H. eumorpha* and (*Panurgus*) *H. regularis* Cress. and is very close to *regularis*. The type of *fuchsi* is in bad condition and the identification is, therefore, somewhat uncertain.

The following table will separate the males of the group of *rhodocerata* and allies, that is those in which the propodeal triangle is not closely punctured but mostly smooth.